

## **TRACKING AND MAINTAINING RELATED AND DERIVATIVE CODE**

### **ABSTRACT OF THE DISCLOSURE**

A method and an apparatus within an integrated development environment to increase the efficiency of tracking changes made to source code. The method and apparatus comprise three modes: a constructor mode, a matchmaker mode, and an announcer mode. The constructor first determines what source code/programming constructs are contained within an executable sequence of instructions, evaluates the size of the constructs, and then parses the tokens of the constructs to construct a construct list. The matchmaker determines the degree of similarity between any two constructs in the construct list. If the degree of similarity is sufficient, that is, if the sequence of code between two constructs is so similar that the sections of code may be considered as related and/or derivatives of one another, the matchmaker then determines if any changes made to one section of code may impact the other construct by weighting the changed tokens between the two sets of code. If the change is deemed significant, then the announcer takes over and determines if the developer who owns the related/derived code will be notified that a change has occurred in the first code.